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FEDERAL COMMUNICATIONS COMMISSION

47 CFR parts 15, 74, and 90

[WT Docket Nos. 08-166; 08-167; ET Docket No. 10-24; FCC 14-62]

Revisions to Rules Regarding Low Power Auxiliary Stations, Including Wireless

Microphones

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: In this document, the Federal Communications Commission takes steps to better enable wireless microphone users to provide high quality audio services to serve a wide range of needs. The Commission expands Low Power Auxiliary Station license eligibility under its part 74 rules to include professional sound companies and owners and operators of large venues that routinely use 50 or more wireless microphones, where the use of wireless microphones is an integral part of the major productions or events they host.

DATES: Effective: **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, except for §74.832, which contains new or modified information collection requirements that require approval by the Office of Management and Budget (OMB). The Federal Communications Commission will publish a document in the <u>Federal Register</u> announcing such approval and the relevant effective date.

FOR FURTHER INFORMATION CONTACT: Bill Stafford, Wireless Telecommunications Bureau, (202) 418-0563, email Bill.Stafford@fcc.gov.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Second

Report and Order (Second R&O), WT Docket Nos. 08-166; 08-167; ET Docket No. 10-24; FCC 14-62, adopted May 15, 2014, and released June 2, 2014. The full text of this document is available for inspection and copying during business hours in the FCC Reference Information Center, Portals II, 445 12th Street SW., Room CY-A257, Washington, DC 20554. Also, it may be purchased from the Commission's duplicating contractor at Portals II, 445 12th Street SW, Room CY-B402, Washington, DC 20554; the contractor's Web site, http://www.bcpiweb.com; or by calling (800) 378-3160, facsimile (202) 488-5563, or email FCC@BCPIWEB.com. Copies of the Second R&O also may be obtained via the Commission's Electronic Comment Filing System (ECFS) by entering the docket number WT Docket No. 08-166. Additionally, the complete item is available on the Federal Communications Commission's web site at http://www.fcc.gov.

I. INTRODUCTION

- 1. In this Second R&O, the Commission takes steps to better enable wireless microphone users to provide high quality audio services to serve a wider range of needs. Theatrical productions, concerts, sporting events, conventions and houses of worship all depend on wireless microphones to meet their needs for high quality audio services. The actions the Commission takes shall extend license eligibility to those wireless microphone users who have needs similar to those of existing low power auxiliary stations (LPAS) licensees. Specifically, the Commission expands part 74 license eligibility to include professional sound companies and owners and operators of large venues that routinely use 50 or more wireless microphones, where the use of wireless microphones is an integral part of the major productions or events they host. The Commission concludes that this measured approach strikes an appropriate balance in providing the benefits of a license for entities and events that have a demonstrated need, while ensuring that spectrum is shared effectively with existing LPAS operations and remains available for other uses, including TV white space (TVWS) devices.
- 2. The actions the Commission takes in this Second R&O to expand license eligibility and protection are only one step to address a range of issues concerning the operation of wireless microphones. In the <u>Incentive Auction Report and Order</u>, (FCC 14-62, adopted May 15, 2014, and released June 2, 2014), adopted concurrently with this Second R&O, the Commission adopts several measures to accommodate the needs of wireless microphone users in the portion of the UHF band that will remain available for their operations following the incentive auction. Among other actions, the Commission revised its rules for co-channel operations to expand areas where wireless microphones may be used in the bands that will remain allocated for broadcast services, and the Commission will permit wireless microphones to operate in the 600 MHz guard bands spectrum. Although the Commission will no longer

designate two TV channels exclusively for wireless microphone use after the UHF band is reorganized, the Commission intends to designate one channel for use by wireless microphones and unlicensed devices and plans to make improvements in the TV bands database to enable more timely and effective registration of wireless microphone users seeking interference protection from TVWS device operations. In addition, while wireless microphones will eventually be required to cease operating in the spectrum repurposed for wireless broadband, the Commission will allow wireless microphone users to continue to operate for 39 months following the incentive auction in order to facilitate their transition to other spectrum. Finally, recognizing the important benefits provided by wireless microphones, the Commission plans to initiate a proceeding in the near term to explore ways to help accommodate the longer-term needs of wireless microphone users through use of additional frequency bands to meet their varying needs.

II. BACKGROUND

3. The Commission's rules in part 74, Subpart H, provide for licensed operations of wireless microphones primarily on frequencies allocated for television broadcasting on a secondary, non-exclusive basis. License eligibility has evolved over time and now includes the following specified entities: licensees of radio and broadcast television stations, broadcast television network entities, certain cable television system operators, and motion picture and television program producers. These entities share the need for regular and reliable high quality audio services that are free from interference and often require a large number of wireless microphones to meet their needs. Licensees may not cause harmful interference to the operations of TV broadcast and land mobile stations operating on a primary basis and must comply with a number of technical rules. These include requirements to avoid causing harmful

interference to TV broadcasting and land mobile station operations, to coordinate frequencies with other LPAS operations, to comply with specified transmission power limits and out-of-band emission limits, and to use FCC-certified equipment. LPAS licensees may receive protection from TVWS devices by registering in the TV bands database.

- 4. In the 2010 Wireless Microphone Report and Order, 75 FR 3622, January 22, 2010, the Commission first authorized unlicensed operations in the broadcast television bands in recognition of the important benefits provided by wireless microphones in performances and programs in theaters, classrooms, lecture halls, houses of worship, stadiums, and other venues. The Commission granted waivers of its rules to permit continued operations of wireless microphones on an unlicensed basis under part 15 in the core television bands, generally at a power of up to 50 milliwatts. These temporary waivers have been in effect pending further action in this docket.
- 5. The Commission subsequently recognized that certain types of unlicensed wireless microphone users require a large number of wireless microphones and should therefore be permitted to register in the TV bands database, upon meeting certain conditions. Specifically, the new rule provided that an unlicensed wireless microphone user must demonstrate to the Commission that it requires a large number of microphones and that it is using all TV channels not available to other users and on which wireless microphones can practicably be used. Unlike LPAS licensees, which can register directly with the database administrator, unlicensed wireless microphone users must apply to the Commission and must do so at least 30 days in advance of the event for which they seek protection.
- 6. In the <u>Wireless Microphone Further Notice</u>, 75 FR 3682, January 22, 2010, the Commission sought comment on whether to provide for a limited expansion of license eligibility

under part 74 Subpart H of the rules. The Commission recognized that certain types of unlicensed wireless microphone users, including many large cultural, civic, sporting and religious events, may have needs that are similar to existing licensees and share the need for the kinds of interference protection that a license affords. The Commission further noted that it previously had expanded license eligibility to accommodate users with requirements similar to those of broadcast licensees. However, it noted that any "broad expansion" of eligibility could significantly reduce the amount of spectrum available for other uses of the TV bands, such as by TVWS devices. In addition, the Commission understood that any expansion of part 74 license eligibility would have an impact on the existing licensees and sought comment on how expansion might affect the viability of frequency coordination among existing licensees that make use of the spectrum to address their needs. The Commission subsequently issued a public notice to refresh the record on these issues, as well as on the promotion of more efficient use of spectrum, and the impact of TVWS devices and incentive auction proceedings regarding spectrum currently allocated to TV broadcasting.

7. The Commission received 24 comments and 18 reply comments in response to the Wireless Microphone Further Notice. The Commission received 25 comments and 11 reply comments in response to the Wireless Microphone Refresh Public Notice.

III. DISCUSSION

8. In this Second R&O, the Commission finds that it is in the public interest to provide for a limited expansion of the types of entities eligible for a part 74 LPAS license to include qualifying professional sound companies, as well as owners and operators of large venues. In order to qualify for a license, a professional sound company or venue must certify that it provides audio services or holds events that routinely use 50 or more wireless

microphones, where the use of such devices is an integral part of major events or productions. Routinely using 50 or more wireless microphones means that the professional sound company or venue uses 50 or more such devices for most events or productions. Such events may include, for example, performing arts events; major sports, cultural, religious and corporate events; and large theater productions.

- 9. The Commission concludes that professional sound companies and venues that routinely use 50 or more wireless microphones generally have the same needs for interference protection as existing LPAS licensees in order to ensure reliable, high quality audio, particularly given the spectrum requirements associated with use of a large number of wireless microphones. This expansion will provide a meaningful benefit to entities that require the protection that a license affords without unduly reducing the amount of spectrum available for other uses in the television bands. Unlicensed wireless microphone users that do not qualify for a license may continue to operate under the terms of the existing waivers.
- 10. Expanded License Eligibility. The eligibility threshold the Commission adopts is limited to professional sound companies and venues that have the sophisticated knowledge and capability to manage use and coordination of a large number of wireless microphones, register qualifying events in the TV broadcast database, and comply with LPAS rules. As discussed in the record, these types of professional users have experience in coordinating wireless microphone uses among themselves at venues or events, even in congested markets. They also have similar needs to existing LPAS licensees in order to provide high quality audio services for large scale performances and events.
- 11. For purposes of the revised eligibility rule, a professional sound company is defined as an entity that provides audio services that routinely use 50 or more low power

auxiliary station devices, where the use of such devices is an integral part of major events or productions. Services by a professional sound company may include the provision of equipment, as well as engineering expertise and frequency coordination. A production company that provides its own audio services, such as a touring theater company or performer, would be eligible for licensing under this definition, provided that it routinely uses 50 or more wireless microphones in connection with the performances or events.

- 12. Eligible venues are those that routinely use 50 more wireless microphones and may include indoor or outdoor seated facilities, including auditoriums, amphitheaters, arenas, stadiums, theaters, and houses of worship, as well as indoor or outdoor venues without fixed seating, including convention centers, conference locations, amusement parks, fairgrounds, entertainment complexes, athletic facilities, educational centers, and government locations. The venue does not have to own or operate the wireless microphones itself to qualify for the LPAS license but must routinely host large-scale productions that require 50 or more of these devices.
- 13. Licenses issued to large venue owners or operators are specific to a single venue and authorize operation only at that venue. The Commission allows venues that are comprised of more than one theater or stage area to be eligible provided they routinely use 50 or more wireless microphones by combining all theaters or stage areas at that same location. This will provide interference protection for all theaters and similar facilities at large multi-stage venues, and it will provide flexibility to the licensee, for example, in the event there are location changes for performances and events within the venue.
- 14. Expanding eligibility in this manner is consistent with the approach the Commission has previously taken with respect to part 74 LPAS license eligibility. Although licensing was initially limited to licensees of radio and broadcast television stations, the

Commission expanded licensing eligibility to include motion picture and television producers on grounds that these entities had the same types of needs as existing LPAS licensees. It further noted that it would consider on a case-by-case basis license applications by "other groups such as live entertainment program producers, etc." whose needs are similar to those of broadcast licensees.

- order to provide high quality audio services for large scale performances and events. The Commission notes, for example, that interference protection is just as important for professional sound companies and venues that present large performances as it is for existing broadcast and broadcast-related entities because of the need to protect the quality of the performances that their audiences demand and value. For example, the Commission notes that the need for licensed LPAS devices to be free from harmful interference can be critical for large, live performances, where there may be no chance at a "second take."
- 16. The Commission concludes that routine use of 50 microphones is a reasonable threshold for identifying those entities that are more likely to require interference protection in order to ensure high quality audio services. The record shows that large events and programs regularly utilize a substantial number of wireless microphones. The number of wireless microphones used is generally an indicator of the complexity of productions and the need to ensure interference-free high audio quality. Interference protection is important for large, live performances because audiences expect "performances of the highest caliber," and interference should not hinder such performances.
- 17. Although the number of these devices used for any event can vary based upon a variety of factors, including the nature of the performance, large events and productions often

require 50 or more devices. Data submitted by parties indicate that an average of approximately 50 wireless microphones is used for theatrical performances, and that complex performances, such as musicals, often use more. These data also indicate that average wireless microphone usage at sporting events is approximately 80 microphones (although major sporting events can top 300 microphones), and that more than 150 wireless microphones on average are used at live events or shows.

- 18. Large events and productions have less flexibility in choosing channels to avoid interference than when only a few such devices are used. This occurs because the wireless microphone user needs to avoid causing interference to or receiving interference from operating TV station signals as well as other wireless microphones operating in close frequency and spatial proximity (e.g., among the wireless microphones being used during any one event or production). As a result, productions utilizing a large number of these devices must have access to a significant amount of spectrum that may only be available through licensed use. A production utilizing 50 devices, for example, could need interference-free access to many TV channels at any given venue. For these reasons, the Commission concludes that routine use of a minimum of 50 wireless microphones provides a reasonable basis for establishing license eligibility.
- 19. Finally, adopting a standard based on the number of wireless microphones in this case, 50 or more is in the public interest because it does not just focus on one particular class or group of users, or on the content of the presentation or event. Rather, this standard encompasses a range of professional entities that provide sound for major events and productions irrespective of the class or group of users or the content of the event or performance.

- 20. The limited expansion the Commission adopts strikes an appropriate balance in expanding license eligibility where there is a clear need, while ensuring that spectrum is shared effectively with the existing LPAS operations and remains available for other uses, such as by TVWS devices. Together with the provisions adopted in the Incentive Auction Report and Order, the expansion the Commission adopts will ensure that the reduced amount of television spectrum that remains after repacking can continue to accommodate wireless microphone operations along with other uses in an efficient and effective manner. For this reason, the Commission rejects arguments presented by parties who oppose any expansion of part 74 eligibility by arguing that such expansion will unduly reduce spectrum available for other uses, such as TVWS devices, especially in major metropolitan areas, and hinder the development of wireless broadband. The Commission also agrees that it is important "to be flexible" in expanding eligibility, and its new eligibility criteria are designed with that goal in mind. However, the Commission does not believe it is appropriate to expand eligibility further than the approach the Commission adopts in this order. Limiting license eligibility expansion to professional sound companies and venues that routinely use 50 or more wireless microphones strikes an appropriate balance among competing users for the more limited broadcast spectrum remaining after the repacking, while as noted below continuing to permit use by other wireless microphone users on an unlicensed basis.
- 21. The Commission notes at the outset that the licensing eligibility criteria the Commission establishes should have limited impact on the availability of spectrum for other users in the repacked UHF band. First, the Commission does not expect to significantly expand the types of events or use that would qualify for interference protection from TVWS devices, given that the Commission already permits events that require a large number of microphones to

be registered in the database today. The Commission's rules currently allow both existing part 74 licensees and certain unlicensed users requiring large numbers of wireless microphones to register in the database for interference protection, although unlicensed users must demonstrate that they are using the TV channels not available for TVWS devices and must request registration by filing with the Commission, rather than the database administrator, at least 30 days in advance. The rules adopted in this order will enable the newly eligible entities, which generally are able to register for database protection as unlicensed users, to obtain protection in the TV bands database in a more administratively efficient manner, through the part 74 license process.

Report and Order help mitigate the impact that expanding eligibility may have on other users in the band. For example, by addressing the spectrum needs of wireless microphone users in a new proceeding that the Commission will initiate in the near term to promote the use of frequency bands outside of the UHF band, the Commission potentially increases spectrum resources available to TVWS devices in the TV bands, as well as to existing and newly eligible LPAS licensees both in the TV bands and in other spectrum bands. The Incentive Auction Report and Order also makes additional spectrum available to TVWS devices by providing such devices access to the repurposed spectrum during the 39-month transition period, designating one channel for use by TVWS and wireless microphones and permitting them to continue operating on vacant channels allocated and assigned for primary television services, making the 600 MHz guard bands available for unlicensed use, as well as permitting unlicensed use on channel 37 subject to appropriate protections for channel 37 incumbents. Taken together, the Commission

expects that these actions will help to address the existing and longer-term needs of wireless microphones and TVWS users.

- still operate on an unlicensed basis. The Commission is not persuaded by arguments that with expanded eligibility the Commission should restrict unlicensed wireless microphone use in the TV bands. The Commission finds it is in the public interest to continue the temporary waiver for unlicensed operations under part 15 that was granted in the Wireless Microphone Report and Order, and the Commission will make a determination on rules for unlicensed operations at a later date. This approach serves the public interest because it continues to provide a waiver for the operation of wireless microphones under part 15 for a wide range of applications, and permits the Commission to compile a record focused on unlicensed operations while the Commission considers other issues. On balance, the Commission concludes that the changes it is making best serves to address the important needs of wireless microphone users as well as other users that seek access to the broadcast spectrum that remains available for use following repacking.
- 24. There are parties who argue that expanding license eligibility will lead to inefficient use, remove incentives for technological advancement, and "cement the use of inefficient technologies," but the Commission finds that these arguments do not provide a sufficient basis to outweigh the benefits of expanded eligibility in ensuring high quality audio services in connection with large events. Although high quality audio largely depends upon analog technology at the present time, steps have been taken during the past few years to develop and make available digital wireless microphones. The Commission has found that it is in the public interest to provide for a limited expansion of license eligibility, and the Commission will consider the current state of digital technology for wireless microphones, along with the

spectrum needs of wireless microphone and other users, in connection with a forthcoming Notice of Proposed Rulemaking on wireless microphones.

- 25. Nuclear Power Plants. The Commission denies requests to expand eligibility under Part 74 to include nuclear power plants, but the Commission modifies the NEI/UTC Waiver Letter Order to provide a uniform transmit power for operation of unlicensed low power auxiliary devices both inside and outside the nuclear power plants, as explained below. The NEI/UTC Waiver Letter Order provided nuclear power plants with additional flexibility in the operation of unlicensed low power auxiliary station devices by establishing tailored operating provisions for the use of those devices inside nuclear power plants. NEI/UTC ask that the rule waiver granted in the NEI/UTC Waiver Letter Order be codified in part 15 of the rules. They also ask that nuclear plants be made eligible under part 74 for licensed LPAS use at their plants so that they can have "greater flexibility to use their Telex equipment in more limited outdoor applications at their facilities, such as when carrying fuel rods to storage locations."
- 26. The Commission declines to expand part 74 eligibility to include nuclear power plants as unnecessary at this time because the Commission is providing increased flexibility for their operations by modifying the rule waiver to make the power limits uniform for both indoor and outdoor operations. This modification of the rule waiver obviates the need to expand eligibility to include nuclear power plants because the modified waiver will enable nuclear power plants to use their Telex equipment both indoors and outdoors at 100 milliwatts. The Commission also declines to codify the waiver provisions at this time, because there has been no showing that further relief is necessary prior to consideration of changes to its rules in connection with the forthcoming Notice of Proposed Rulemaking addressing wireless microphone use. Finally, the Commission finds that operations of these devices outside at

transmit levels up to 100 milliwatts would not interfere with other users in the TV bands because the locations of nuclear power plants are known, they generally are located in remote areas, and their Telex equipment operates at a relatively low power.

- 27. <u>License Requirements.</u> As part of the licensing process, applicants will be required to certify and provide supporting evidence that they meet all eligibility criteria, including information showing that they routinely provide audio services or hold events that require use of 50 or more wireless microphones. The requirement that a licensee must routinely provide audio services or hold events that require use of 50 or more wireless microphones will also appear as a condition on the license. In addition, as with other licensed operations for LPAS, newly eligible licensees will be subject to all applicable rules, including the requirement that wireless microphone use is "secondary to TV broadcasting and land mobile stations operating in the UHF-TV spectrum and must not cause harmful interference." If such interference occurs, the operation must immediately cease and may not resume until the interference problem has been resolved. Moreover, where two or more LPAS licensees seek to operate in the same area, the licensees should "select frequencies or schedule operation in such manner as to avoid mutual interference."
- 28. The Commission declines to modify its licensing procedures or the information required from an applicant, except to the extent necessary to reflect the modification to the rules the Commission adopts here. The new class of eligible entities is comprised of venues and professional sound companies that routinely use 50 or more wireless microphones, and the Commission does not anticipate that the licensing process should be difficult for them to follow. Further, the Commission concludes that it is not necessary to grant the request for separate licenses for individual frequency ranges because an applicant is already able to specify

individual frequency ranges on its license. Finally, the Commission rejects requests to modify or waive the fees relating to LPAS. The Commission is required to assess and collect application fees pursuant to section 8 of the Communications Act of 1934, as amended, and the Commission declines to grant a waiver except pursuant to its established waiver standards for a "specific instance for good cause shown, where such action would promote the public interest."

- 29. <u>License Conditions</u>. The <u>Incentive Auction Report and Order</u> requires wireless microphones to vacate the repurposed UHF spectrum by the end of the post-auction transition period, which will be 39 months after the release of the <u>Channel Reassignment Public Notice</u>. Consistent with this deadline, the Commission expressly conditions any new LPAS licenses granted between now and that date, including licenses granted to newly eligible licensees, on the requirement to cease operating in the repurposed spectrum no later than that date. Further, the Commission delegates authority to the WTB to modify the LPAS licenses to delete the frequencies identified as repurposed in the <u>Channel Reassignment Public Notice</u>, effective as of the end of the post-auction transition period, and to make any other related changes as necessary. Following the post-auction transition period, licensees may operate only in the bands allocated for TV broadcasting.
- 30. <u>License Term.</u> The Commission finds that it is in the public interest to provide newly eligible licensees an initial and renewal license term not to exceed ten years. A ten-year term for these licenses is consistent with the license term of most other wireless services, such as part 27 services, cellular service, and Personal Communications Services. Moreover, a ten-year license term provides these licensees with flexibility because it is a relatively long period of time and will give them a greater degree of certainty in connection with their status and ability to receive the benefits of a license.

31. The existing rule ties the license term to that of broadcast stations in the same area of operation. The Commission declines to apply this rule to the new licensees because their operation of wireless microphones is generally not related to or affiliated with local broadcast operations, and conforming their license term to the term of local broadcast stations could lead to confusion with no corresponding benefit. The Commission notes that if it applied the existing rule to the new licensees, they would have an initial license term that is no more than eight years but could be substantially less if the license were obtained in the middle of the license term of broadcast stations located in the same area of operation. Moreover, many new professional sound company licensees may provide services in different regions. Application of the existing LPAS license term would be burdensome and confusing because it would result in different license terms for the same entity operating in different geographic areas. Finally, the Commission anticipates that many of these new licensees could be small entities and that it would ease regulatory burdens on them if their initial license term were to run for the full tenyear period.

IV. PROCEDURAL MATTERS

32. <u>Final Regulatory Flexibility Analysis</u>. The Regulatory Flexibility Act (RFA) requires that an agency prepare a regulatory flexibility analysis for notice and comment rulemakings, unless the agency certifies that "the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities." Accordingly, the Commission has prepared a Final Regulatory Flexibility Analysis concerning the possible impact of the rule changes contained in the Second R&O on small entities. As required by the Regulatory Flexibility Act of 1980, as amended (RFA), an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the <u>Wireless Microphone Further Notice</u>. The Commission sought written public

comment on the proposals in the <u>Wireless Microphone Further Notice</u>, including comment on the IRFA. This Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.

33. The Commission believes that it would serve the public interest to analyze the possible significant economic impact of the policy and rule changes for expanded wireless microphone license eligibility on small entities. Accordingly, this FRFA contains an analysis of this impact in connection with the limited expansion of wireless microphone license eligibility within the scope of this Second R&O.

A. Need for, and Objectives of, the Report and Order

34. The Commission provides for a limited expansion of wireless microphone license eligibility under part 74, Subpart H of the Commission's rules to facilitate the operation of wireless microphones by professional sound companies and the owners and operators of large venues that use a large number of these devices. Specifically, in order to be eligible for a license, a professional sound company or venue must certify that it provides audio services or holds events that routinely use 50 or more wireless microphones, where the use of such devices is an integral part of major events or productions. Professional sound companies and large venues that meet these requirements have needs for interference protection to ensure reliable, high quality audio. Expanding wireless microphone license eligibility on this basis is in the public interest because it will benefit entities that require the protection that a license affords without unduly reducing the amount of spectrum available for other uses in the television spectrum bands. In addition, expanding license eligibility in this manner avoids distinctions based on presentation content or on particular classes or groups of users.

- B. Summary of Significant Issues Raised By Public Comments in Response to the IRFA
- 35. There were no comments filed that specifically addressed the rules and policies proposed in the IRFA.
 - C. Description and Estimate of the Number of Small Entities to Which the Rules
 Would Apply
- 36. The RFA directs agencies to provide a description of, and, where feasible, an estimate of, the number of small entities that may be affected by the rules adopted herein. The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction." In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act. A "small business concern" is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA).
- 37. Small Businesses, Small Organizations, and Small Governmental Jurisdictions. The Commission's action may, over time, affect small entities that are not easily categorized at present. The Commission therefore describes here, at the outset, three comprehensive, statutory small entity size standards. First, nationwide, there are a total of 28.2 million small businesses, according to the SBA. In addition, a "small organization" is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field."

 Nationwide, as of 2012, there were approximately 2,300,000 small organizations. Finally, the term "small governmental jurisdiction" is defined generally as "governments of cities, towns, townships, villages, school districts, or special districts, with a population of less than fifty

thousand." Census Bureau data for 2012 indicate that there were 90,056 local governments in the United States. Thus, the Commission estimates that most governmental jurisdictions are small.

- 38. <u>LPAS Licensees</u>. There are a total of more than 1,200 Low Power Auxiliary Station (LPAS) licenses in all bands and a total of over 600 LPAS licenses in the UHF spectrum. Existing LPAS operations are intended for uses such as wireless microphones, cue and control communications, and synchronization of TV camera signals. These low power auxiliary stations transmit over distances of approximately 100 meters.
- 39. <u>Radio Stations</u>. This Economic Census category "comprises establishments primarily engaged in broadcasting aural programs by radio to the public. Programming may originate in their own studio, from an affiliated network, or from external sources." The SBA defines a radio broadcast station as a small business if such station has no more than \$35.5 million in annual receipts. Business concerns included in this industry are those "primarily engaged in broadcasting aural programs by radio to the public." According to Commission staff review of the BIA Publications, Inc. <u>Master Access Radio Analyzer Database</u> as of November 26, 2013, about 11,331 (or about 99.9 percent) of 11,341 commercial radio stations have revenues of \$35.5 million or less and thus qualify as small entities under the SBA definition.
- 40. The Commission notes, however, that, in assessing whether a business concern qualifies as small under the above definition, business (control) affiliations must be included. Its estimate, therefore, likely overstates the number of small entities that might be affected by its action, because the revenue figure on which it is based does not include or aggregate revenues from affiliated companies.
 - 41. Television Broadcasting. This Economic Census category "comprises

establishments primarily engaged in broadcasting images together with sound. These establishments operate television broadcasting studios and facilities for the programming and transmission of programs to the public." The SBA has created the following small business size standard for Television Broadcasting firms: those having \$14 million or less in annual receipts. The Commission has estimated the number of licensed commercial television stations to be 1,388. In addition, according to Commission staff review of the BIA Advisory Services, LLC's Media Access Pro Television Database on March 28, 2012, about 950 of an estimated 1,300 commercial television stations (or approximately 73 percent) had revenues of \$14 million or less. The Commission therefore estimates that the majority of commercial television broadcasters are small entities

- 42. The Commission notes, however, that in assessing whether a business concern qualifies as small under the above definition, business (control) affiliations must be included. Its estimate, therefore, likely overstates the number of small entities that might be affected by its action because the revenue figure on which it is based does not include or aggregate revenues from affiliated companies. In addition, an element of the definition of "small business" is that the entity not be dominant in its field of operation. The Commission is unable at this time to define or quantify the criteria that would establish whether a specific television station is dominant in its field of operation. Accordingly, the estimate of small businesses to which rules may apply does not exclude any television station from the definition of a small business on this basis and is therefore possibly over-inclusive to that extent.
- 43. In addition, the Commission has estimated the number of licensed noncommercial educational (NCE) television stations to be 396. These stations are non-profit, and therefore considered to be small entities.

- 44. There are also 2,414 low power television stations, including Class A stations and 4,046 television translator stations. Given the nature of these services, the Commission will presume that all of these entities qualify as small entities under the above SBA small business size standard.
- defined within the broad economic census category of Wired Telecommunications Carriers; that category is defined as follows: "This industry comprises establishments primarily engaged in operating and/or providing access to transmission facilities and infrastructure that they own and/or lease for the transmission of voice, data, text, sound, and video using wired telecommunications networks. Transmission facilities may be based on a single technology or a combination of technologies." The SBA has developed a small business size standard for this category, which is: all such firms having 1,500 or fewer employees. Census data for 2007 shows that there were 3,188 firms that operated for the duration of that year. Of those, 3,144 had fewer than 1,000 employees, and 44 firms had more than 1,000 employees. Thus under this category and the associated small business size standard, the majority of such firms can be considered small.
- 46. <u>Cable Companies and Systems</u>. The Commission has also developed its own small business size standards, for the purpose of cable rate regulation. Under the Commission's rules, a "small cable company" is one serving 400,000 or fewer subscribers, nationwide.

 Industry data indicate that of approximately 1,100 cable operators nationwide, all but ten are small under this size standard. In addition, under the Commission's rules, a "small system" is a cable system serving 15,000 or fewer subscribers. Industry data indicate that of 6,635 systems nationwide, 5,802 systems have fewer than 10,000 subscribers, and an additional 302 systems

have 10,000-19,999 subscribers. Thus, under this second size standard, most cable systems are small.

- contains a size standard for small cable system operators, which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1 percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed \$250,000,000." The Commission has determined that an operator serving fewer than 677,000 subscribers shall be deemed a small operator, if its annual revenues, when combined with the total annual revenues of all its affiliates, do not exceed \$250 million in the aggregate. Industry data indicate that of approximately 1,100 cable operators nationwide, all but ten are small under this size standard. The Commission notes that it neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million, and therefore the Commission is unable to estimate more accurately the number of cable system operators that would qualify as small under this size standard.
- 48. <u>Motion Picture and Video Producers</u>. This economic census category comprises "establishments primarily engaged in producing, or producing and distributing motion pictures, videos, television programs, or television commercials." The SBA has developed a small business size standard for this category that includes all businesses having \$30 million or less in annual receipts. Census Bureau data for 2007 show there were 9,478 firms in this category that operated that year. Of that number, 9,128 had annual receipts of \$24,999,999 or less, and 43 had annual receipts ranging from not less than \$25,000,000 to \$100,000,000 or more. Thus, under this size standard, the majority of such businesses can be considered small entities.

- Educational Broadband Service (formerly Multipoint Distribution Service) and

 Educational Broadband Service (formerly Instructional Television Fixed Service). Multichannel

 Multipoint Distribution Service (MMDS) systems often referred to as "wireless cable," transmit

 video programming to subscribers using the microwave frequencies of the Multipoint

 Distribution Service (MDS) and Instructional Television Fixed Service (ITFS). In its BRS/EBS

 Report and Order in WT Docket No. 03-66, the Commission comprehensively reviewed its

 policies and rules relating to the ITFS and MDS services, and replaced the MDS with the

 Broadband Radio Service and ITFS with the Educational Broadband Service in a new band plan

 at 2495-2690 MHz. In connection with the 1996 MDS auction, the Commission defined "small

 business" as an entity that, together with its affiliates, has average gross annual revenues that are

 not more than \$40 million for the preceding three calendar years. The SBA approved of this

 standard.
- 50. The SBA developed a small business size standard for Cable and Other
 Distribution, and the activities under that classification have been reclassified into Wired
 Telecommunications Carriers. The SBA has developed a small business size standard for Wired
 Telecommunications Carriers, which is all such firms having 1,500 or fewer employees. Census
 data for 2007 shows that there were 3,188 firms that operated for the duration of that year. Of
 those, 3,144 firms had fewer than 1,000 employees, and 44 firms had 1,000 or more employees.
 Thus under this category and the associated small business size standard, the majority of such
 firms can be considered small. In addition to Census data, the Commission's internal records
 indicate that, as of September 2012, there are 2,241 active EBS licenses. The Commission
 estimates that of these 2,241 licenses, the majority are held by non-profit educational institutions
 and school districts, which are by statute defined as small businesses.

- and Wireless Communications Equipment Manufacturing. The Census Bureau defines this category as follows: "This industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment.

 Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment." The SBA has developed a small business size standard for Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing, which is: all such firms having 750 or fewer employees. According to Census Bureau data for 2007, there were a total of 939 establishments in this category that operated for the entire year. Of this total, 912 establishments had employment of less than 500, and an additional 10 establishments had employment of 500 to 999. Thus, under this size standard, the majority of firms can be considered small.
- Manufacturing. The Census Bureau defines this category as follows: "This industry comprises establishments primarily engaged in manufacturing communications equipment (except telephone apparatus, and radio and television broadcast, and wireless communications equipment)." The SBA has developed a small business size standard for Other Communications Equipment Manufacturing, which is: all such firms having 750 or fewer employees. According to Census Bureau data for 2007, there were a total of 452 establishments in this category that operated for the entire year. Of this total, 448 establishments had employment below 500, and an additional 4 establishments had employment of 500 to 999. Thus, under this size standard, the majority of firms can be considered small.

- 53. Radio, Television, and Other Electronics Stores. The Census Bureau defines this economic census category as follows: "This U.S. industry comprises: (1) establishments known as consumer electronics stores primarily engaged in retailing a general line of new consumertype electronic products such as televisions, computers, and cameras; (2) establishments specializing in retailing a single line of consumer-type electronic products; (3) establishments primarily engaged in retailing these new electronic products in combination with repair and support services; (4) establishments primarily engaged in retailing new prepackaged computer software; and/or (5) establishments primarily engaged in retailing prerecorded audio and video media, such as CDs, DVDs, and tapes." The SBA has developed a small business size standard for Electronic Stores, which is: all such firms having \$30 million or less in annual receipts.

 According to Census Bureau data for 2007, there were 11,358 firms in this category that operated for the entire year. Of this total, 11,323 firms had annual receipts of under \$25 million, and 35 firms had receipts of \$25 million or more but less than \$50 million. Thus, the majority of firms in this category can be considered small.
- 54. <u>Professional Lighting and Sound Services</u>. After an extensive review of the NAICS industry classification system, the Commission was unable to find an exact category match for the firms which provide professional sound services for live events. The industry association for these firms, Professional Lighting and Sound Association, is an international body with 1,240 members and offices in London and New York. As its membership is both foreign and domestic, the Commission cannot ascertain how many of its members operate in the United States and would be subject to the new rules in this order.

- D. Description of Projected Reporting, Recordkeeping, and Other Compliance

 Requirements for Small Entities
- 55. As with other licensed operations for LPAS, a licensee that is eligible under the revised rule will be subject to all applicable rules, including the requirement that wireless microphone use is "secondary to TV broadcasting and land mobile stations operating in the UHF-TV spectrum and must not cause harmful interference." If such interference occurs, the operation must immediately cease and may not resume until the interference problem has been resolved. Moreover, where two or more LPAS licensees seek to operate in the same area, the licensees should "select frequencies or schedule operation in such manner as to avoid mutual interference."
- 56. The Incentive Auction Report and Order requires wireless microphones to vacate the repurposed UHF spectrum by the end of the post-auction transition period, which will be 39 months after the release of the Channel Reassignment Public Notice. Consistent with this deadline, the Second R&O conditions any new LPAS licenses granted between now and that date, including licenses granted to newly eligible licensees, on the requirement to cease operating in the repurposed spectrum no later than that date. Further, the Commission delegates authority to the Wireless Telecommunications Bureau (WTB) to modify these licenses to delete the frequencies identified as repurposed in the Channel Reassignment Public Notice, effective as of the end of the post-auction transition period, and to make any other related changes as necessary. Following the post-auction transition period, licensees may operate only in the bands allocated for TV broadcasting.

- E. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered
- 57. The RFA requires an agency to describe any significant, specifically small business alternatives that it has considered in developing its approach, which may include the following four alternatives (among others): "(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities."
- 58. In the Second R&O, the Commission declines to modify its licensing procedures or the information required from an applicant, except to the extent necessary to reflect the modification to the rules the Commission adopts here. The new class of eligible entities consists of professional sound companies and owners and operators of large venues that routinely use a large number of wireless microphones, and the Commission does not anticipate that the licensing process should be difficult for them to follow. Further, the Commission concludes that it is not necessary to grant the request for separate licenses for individual frequency ranges because an applicant is already able to specify individual frequency ranges on its license. Finally, the Commission rejects requests to modify or waive the fees relating to LPAS, because the Commission is required to assess and collect application fees pursuant to Section 8 of the Communications Act of 1934, as amended.
- 59. The Commission's approach to eligibility in the Second R&O provides a balance by affording the benefits of a license for entities and events that have a demonstrated need, while

ensuring that spectrum is shared effectively with existing LPAS operations and remains available for other uses, including TV white space (TVWS) devices. To the extent any of the entities that will be eligible for a license under the new eligibility rule are small entities, they will be able to obtain a license for their wireless microphone operations. In addition, other entities, including small entities, which do not meet the eligibility requirement, have alternatives for their operations. Under the waiver granted in the Wireless Microphone Report and Order and continued in effect in the Second R&O, such entities may still operate their wireless microphones on an unlicensed basis subject to the waiver and certain other requirements. Also, operators of wireless microphones that are not licensed, which may include small entities, may also be able to register certain events, such as major sporting contests or live theatrical productions, in the TV bands databases for protection against interference from TVWS devices provided they meet the requirements in the Commission's rules.

60. The Second R&O provides newly eligible licensees an initial and renewal license term not to exceed ten years. A ten-year license term provides these licensees with flexibility because it is a relatively long period of time and will give them a greater degree of certainty in connection with their status and ability to receive the benefits of a license. In contrast, the existing rule ties the license term to that of broadcast stations in the same area of operation. The Commission notes that if it applied the existing rule to the new licensees, they would have an initial license term that is no more than eight years but could be substantially less if the license were obtained in the middle of the license term of broadcast stations located in the same area of operation. Also, many new professional sound company licensees may provide services in different regions. Application of the existing LPAS license term would be burdensome and confusing because it would result in different license terms for the same entity operating in

different geographic areas. The Commission anticipates that many of these new licensees could be small entities and that it would ease regulatory burdens on them if their initial license term were to run for the full ten-year period.

F. Report to Congress

- 61. The Commission will send a copy of the Second R&O, including the FRFA, in a report to be sent to Congress pursuant to the Congressional Review Act. In addition, the Commission will send a copy of the Second R&O, including the FRFA, to the Chief Counsel for Advocacy of the SBA. A copy of the Report and Order and FRFA (or summaries thereof) will also be published in the Federal Register.
- 62. <u>Final Paperwork Reduction Act Analysis</u>. The Second R&O contains new or modified information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. It will be submitted to the Office of Management and Budget (OMB) for review under section 3507(d) of the PRA. OMB, the general public, and other Federal agencies are invited to comment on the new or modified information collection requirements contained in this proceeding. In addition, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, see 44 U.S.C. 3506(c)(4), the Commission seeks specific comment on how it might further reduce the information collection burden for small business concerns with fewer than 25 employees.
- 63. <u>Congressional Review Act</u>. The Commission will send a copy of this Second R&O to Congress and the Government Accountability Office pursuant to the Congressional Review Act, see 5 U.S.C. 801(a)(1)(A).

V. ORDERING CLAUSES

- 64. Accordingly, it is ordered, pursuant to sections 1, 4(i), 301, 302, 303, and 316 of the Communications Act of 1934, as amended, 47 U.S.C. 151, 154(i), 301, 302a, 303, and 316, that this Second Report and Order in WT Docket Nos. 08-166; 08-167, and ET Docket No. 10-24 is adopted.
- 65. <u>It is further ordered</u> that part 74 of the Commission's rules, 47 CFR part 74, <u>is</u> amended as set forth in Appendix B of the Second R&O, and such amendments <u>shall be effective</u> 30 days after the date of publication in the <u>Federal Register</u>, except for section 74.832, which contains new or modified information collection requirements that require approval by the Office of Management and Budget (OMB) under the PRA. The Federal Communications Commission will publish a document in the <u>Federal Register</u> announcing such approval and the relevant effective date.
- 66. <u>It is further ordered</u> that all low power auxiliary station licenses granted between the effective date of this Second Report and Order and the end of the post-auction transition period <u>are conditioned</u> as stated herein and that all low power auxiliary station licenses granted to large venue owners or operators and professional sound companies <u>are conditioned</u> as stated herein.
- 67. <u>It is further ordered</u> that the temporary waiver granted in the <u>Wireless</u> <u>Microphones Report and Order</u>, which permits certain unlicensed operation of wireless microphones in the broadcast television spectrum, shall continue in effect pending the outcome of further proceedings.
 - 68. It is further ordered that the NEI/UTC Waiver Letter Order is modified as stated

herein. As modified, it shall continue in effect pending the outcome of further proceedings.

- 69. <u>It is further ordered</u> that the Commission's Consumer and Governmental Affairs Bureau, Reference Information Center, <u>shall send</u> a copy of this <u>Second Report and Order</u>, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.
- 70. <u>It is further ordered</u> that the Commission <u>shall send</u> a copy of this <u>Second Report</u> and <u>Order</u> in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act, see 5 U.S.C. 801(a)(1)(A).

List of	Sub	jects
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47 CFR Part 15

Communications equipment, Radio.

47 CFR Part 74

Communications equipment, Microphones, Radio, Reporting and recordkeeping requirements.

47 CFR Part 90

Communications equipment, Radio.

FEDERAL COMMUNICATIONS COMMISSION.

Marlene H. Dortch, Secretary.

Final Rules

For the reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR part 74 as follows:

PART 74 - - EXPERIMENTAL RADIO, AUXILIARY, SPECIAL BROADCAST AND OTHER PROGRAM DISTRIBUTIONAL SERVICES

1. The authority citation for part 74 is revised to read as follows:

Authority: 47 U.S.C. 154, 302a, 303, 307, 309, 336 and 554.

2. Section 74.15 is amended by revising paragraph (b) to read as follows:

§ 74.15 Station license period.

* * * * *

(b) Licenses for stations or systems in the Auxiliary Broadcast Service held by a licensee of a broadcast station will be issued for a period running concurrently with the license of the associated broadcast station with which it is licensed. Licenses held by eligible networks for the purpose of providing program service to affiliated stations under subpart D of this part, and by eligible networks, cable television operators, motion picture producers and television program producers under subpart H of this part will be issued for a period running concurrently with the normal licensing period for broadcast stations located in the same area of operation. Licenses held by large venue owners or operators and professional sound companies under subpart H of this part will be issued for a period not to exceed ten years from the date of initial issuance or renewal.

* * * * *

3. Section 74.801 is amended by adding definitions of "Large venue owner or operator" and "Professional sound company" to read as follows:

§ 74.801 Definitions.

* * * * *

<u>Large venue owner or operator</u>. Large venue owner or operator refers to a person or organization that owns or operates a venue that routinely uses 50 or more low power auxiliary station devices, where the use of such devices is an integral part of major events or productions. Routinely using 50 or more low power auxiliary station devices means that the venue owner or operator uses 50 or more such devices for most events or productions.

* * * * *

<u>Professional sound company</u>. Professional sound company refers to a person or organization that provides audio services that routinely use 50 or more low power auxiliary station devices, where the use of such devices is an integral part of major events or productions. Routinely using 50 or more low power auxiliary station devices means that the professional sound company uses 50 or more such devices for most events or productions.

* * * * *

4. Section 74.831 is revised to read as follows:

§ 74.831 Scope of service and permissible transmissions.

The license for a low power auxiliary station authorizes the transmission of cues and orders to production personnel and participants in broadcast programs, motion pictures, and major events or productions and in the preparation therefor, the transmission of program material by means of a wireless microphone worn by a performer and other participants in a program, motion picture, or major event or production during rehearsal and during the actual broadcast, filming, recording,

or event or production, or the transmission of comments, interviews, and reports from the scene of a remote broadcast. Low power auxiliary stations operating in the 944-952 MHz band may, in addition, transmit synchronizing signals and various control signals to portable or hand-carried TV cameras which employ low power radio signals in lieu of cable to deliver picture signals to the control point at the scene of a remote broadcast.

5. Section 74.832 is amended by adding paragraphs (a)(7) and (8) and revising paragraphs (d), (e), and (f) to read as follows:

§ 74.832 Licensing Requirements and Procedures.

- (a) * * *
- (7) Large venue owners or operators as defined in § 74.801.
- (8) Professional sound companies as defined in § 74.801.
- * * * * *
- (d) Cable television operations, motion picture and television program producers, large venue owners or operators, and professional sound companies may be authorized to operate low power auxiliary stations only in the bands allocated for TV broadcasting.
- (e) An application for low power auxiliary stations or for a change in an existing authorization shall specify the broadcast station, or the network with which the low power broadcast auxiliary facilities are to be principally used as given in paragraph (h) of this section; or it shall specify the motion picture or television production company, the cable television operator, the professional sound company, or, if applicable, the venue with which the low power broadcast auxiliary facilities are to be solely used. A single application, filed on FCC Form 601 may be used in applying for the authority to operate one or more low power auxiliary units. The application must specify the frequency bands which will be used. Motion picture producers, television

program producers, cable television operators, large venue owners or operators, and professional sound companies are required to attach a single sheet to their application form explaining in detail the manner in which the eligibility requirements given in paragraph (a) of this section are met. In addition, large venue owners or operators and professional sound companies shall include on the attachment the following certification and shall sign and date the certification: "The applicant hereby certifies that it routinely uses 50 or more low power auxiliary station devices, where the use of such devices is an integral part of major events or productions." (f) Applications for the use of the bands allocated for TV broadcasting must specify the usual area of operation within which the low power auxiliary station will be used. This area of operation may, for example, be specified as the metropolitan area in which the broadcast licensee serves, the usual area within which motion picture and television producers are operating, or the location of the venue. Licenses issued to large venue owners or operators are specific to a single venue and authorize operation only at that venue. Because low power auxiliary stations operating in these bands will only be permitted in areas removed from existing co-channel TV broadcast stations, licensees have full responsibility to ensure that operation of their stations does not occur at distances less than those specified in § 74.802(b).

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